SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

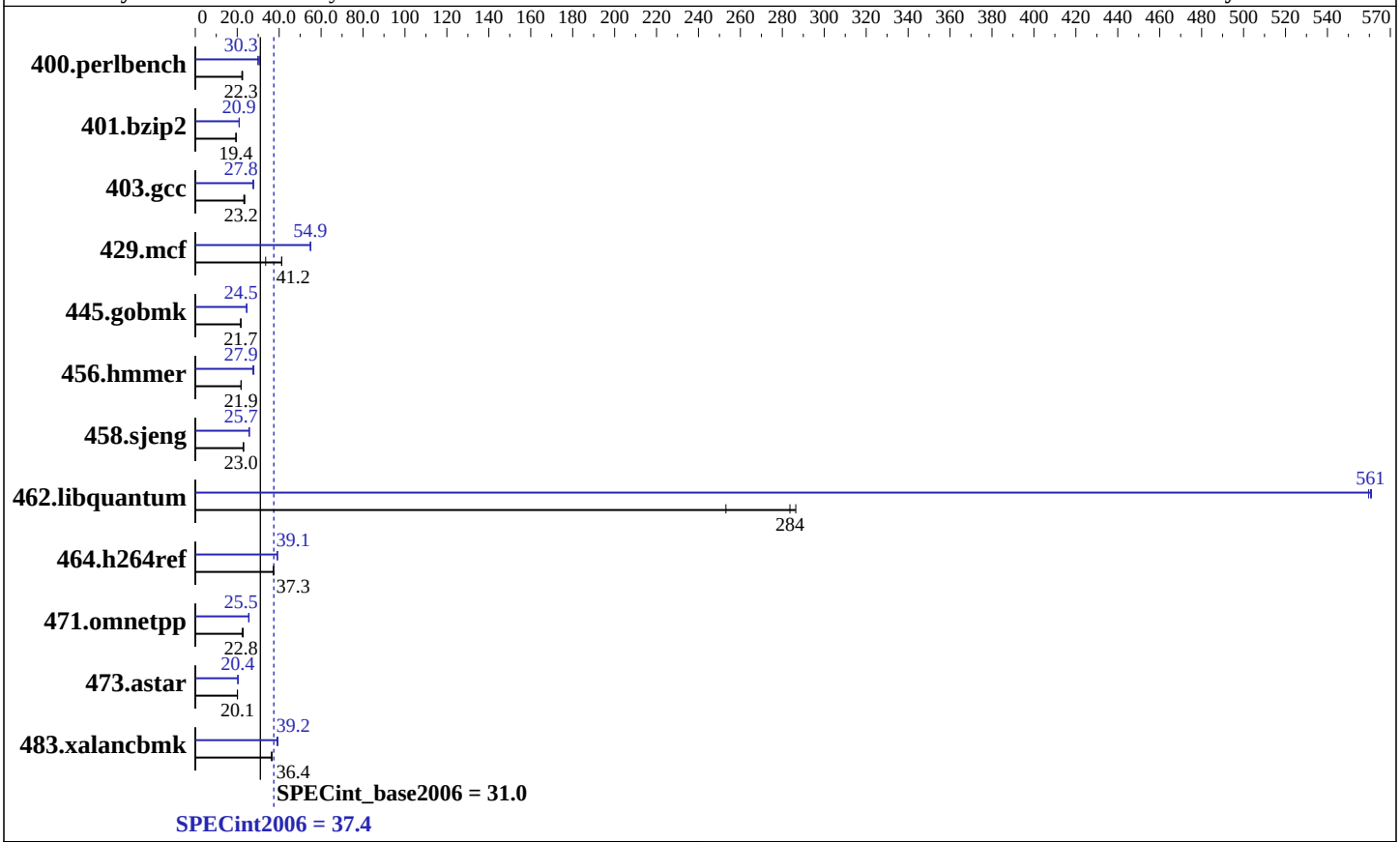
Sun Microsystems

Sun Blade X6275 (Intel Xeon X5570 2.93GHz)

SPECint®2006 =	37.4
SPECint_base2006 =	31.0

CPU2006 license: 6
Test sponsor: Sun Microsystems
Tested by: Sun Microsystems

Test date: Jun-2009
Hardware Availability: Apr-2009
Software Availability: Jun-2009



Hardware

CPU Name:	Intel Xeon X5570
CPU Characteristics:	Intel Turbo Boost Technology up to 3.33 GHz
CPU MHz:	2933
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip
CPU(s) orderable:	1 or 2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core
L3 Cache:	8 MB I+D on chip per chip
Other Cache:	None
Memory:	24 GB (6 x 4 GB DDR3-1333)
Disk Subsystem:	1 x 24 GB, SAS, Sun FlashDisk
Other Hardware:	None

Software

Operating System:	OpenSolaris 2009.06
Compiler:	Sun Studio 12 Update 1
Auto Parallel:	Yes
File System:	zfs
System State:	Default
Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	MicroQuill SmartHeap Library 9.01 for x64 Apache C++ Standard Library V4.2.1

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Sun Microsystems

Sun Blade X6275 (Intel Xeon X5570 2.93GHz)

SPECint2006 = 37.4

SPECint_base2006 = 31.0

CPU2006 license: 6
Test sponsor: Sun Microsystems
Tested by: Sun Microsystems

Test date: Jun-2009
Hardware Availability: Apr-2009
Software Availability: Jun-2009

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	439	22.3	433	22.6	**438**	**22.3**	319	30.6	**322**	**30.3**	328	29.8
401.bzip2	**496**	**19.4**	497	19.4	496	19.4	**461**	**20.9**	460	21.0	462	20.9
403.gcc	**347**	**23.2**	347	23.2	341	23.6	293	27.5	290	27.8	**290**	**27.8**
429.mcf	221	41.2	272	33.6	**222**	**41.2**	**166**	**54.9**	166	55.0	166	54.9
445.gobmk	483	21.7	**483**	**21.7**	484	21.7	428	24.5	428	24.5	**428**	**24.5**
456.hmmer	**427**	**21.9**	427	21.8	427	21.9	341	27.4	334	27.9	**335**	**27.9**
458.sjeng	527	23.0	527	23.0	**527**	**23.0**	471	25.7	470	25.7	**470**	**25.7**
462.libquantum	**73.1**	**284**	81.9	253	72.3	286	**37.0**	**561**	37.0	560	36.9	561
464.h264ref	**593**	**37.3**	593	37.3	593	37.3	566	39.1	565	39.1	**565**	**39.1**
471.omnetpp	274	22.8	**274**	**22.8**	280	22.3	245	25.5	244	25.6	**245**	**25.5**
473.astar	**349**	**20.1**	350	20.1	349	20.1	346	20.3	**345**	**20.4**	345	20.4
483.xalancbmk	189	36.5	189	36.4	**189**	**36.4**	175	39.4	177	39.0	**176**	**39.2**

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Compiler Invocation Notes

```
The Apache C++ Standard Library V4.2.1 was installed from
http://stdcxx.apache.org/download.html using:
    alias gmake=specmake
    gmake BUILDTYPE=8D CONFIG=sunpro.config
```

Operating System Notes

```
ulimit -s 131072  (shell): increases stack

/etc/system parameters
   tune_t_fsflushr=10
   autoup=900
```

Platform Notes

```
AMIBIOS Build Date 1/26/09 ID 07.01.36.00
  Default BIOS settings used except:
  Intel VT-d: Disabled.  VT-d, if enabled, supports
  remapping of I/O DMA transfers for virtualization.
  Hyper-Threading Technology : Disabled.  If enabled,
  allows 2 hw threads to execute per core.
```

General Notes

```
Environment variables set by runspec before the start of the run:
OMP_NUM_THREADS = "4"
SUNW_MP_PROCBIND = "true"
SUNW_MP_THR_IDLE = "SPIN"
```

Base Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS
464.h264ref: -DSPEC_CPU_LP64
471.omnetpp: -DSPEC_CPU_LP64
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS

Base Optimization Flags

C benchmarks:
-fast -xipo=2 -m64 -xpagesize=2M -xprefetch -xalias_level=std
-xautopar

C++ benchmarks:
-fast -xipo=2 -m64 -xpagesize=2M -xvector=simd -xprefetch=no%auto
-xalias_level=compatible
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap64
-library=stlport4

Base Other Flags

C benchmarks:
```
-V -# -xjobs=8
```

C++ benchmarks:
```
-verbose=diags,version -xjobs=8
```

Peak Compiler Invocation

C benchmarks:
```
cc
```

C++ benchmarks:
```
CC
```

Peak Portability Flags

400.perlbench: -DSPEC_CPU_SOLARIS_IA32
403.gcc: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS
462.libquantum: -DSPEC_CPU_SOLARIS
483.xalancbmk: -DSPEC_CPU_SOLARIS

Peak Optimization Flags

C benchmarks:

400.perlbench: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xpagesize=2M -xvector=simd -xalias_level=std
-xprefetch=no%auto -lbsdmalloc -lumem

401.bzip2: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xaddr32=yes -m64 -xpagesize=2M -xalias_level=strong
-xprefetch=no%auto -lumem

403.gcc: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xpagesize=2M -xalias_level=std -xaddr32=yes -m64
-xprefetch=no%auto

429.mcf: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xalias_level=strict -xprefetch=no%auto -lbsdmalloc

Continued on next page

Peak Optimization Flags (Continued)

445.gobmk: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xaddr32=yes -m64
-xpagesize=2M -xrestrict -xalias_level=strong -xdepend
-xautopar -lmvec

456.hmmer: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xaddr32=yes -m64

458.sjeng: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xaddr32=yes -m64 -xpagesize=2M -xvector=simd -xrestrict
-xalias_level=std -xprefetch=no%auto

462.libquantum: -fast -xipo=2 -m64 -xpagesize=2M
-W2,-Aparallel:nthreads=8 -xautopar -xreduction

464.h264ref: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xaddr32=yes -m64 -xpagesize=2M -xalias_level=strong
-xautopar

C++ benchmarks:

471.omnetpp: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xpagesize=2M
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap
-library=stlport4

473.astar: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xaddr32=yes -m64 -xpagesize=2M
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap_mt64
-xalias_level=compatible -library=stlport4 -xautopar

483.xalancbmk: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xaddr32=yes -m64 -xpagesize=2M -xunroll=12
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap64
-library=stlport4

Peak Other Flags

C benchmarks:
-V -# -xjobs=8

Continued on next page

Peak Other Flags (Continued)

C++ benchmarks:
`-verbose=diags,version -xjobs=8`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Sun-OpenSolaris-Studio-x86_64.20090710.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Sun-OpenSolaris-Studio-x86_64.20090710.xml`

SPEC and SPECint are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 02:25:30 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 7 July 2009.